



AF-170

Docket No.: FR920000050US1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Patent Application of: Frederic Bauchot

Group Art Unit: 2178 : IBM Corporation
Examiner: Cesar B. Paula : Intellectual Property Law
Serial No.: 09/887,602 : Department IQ0A/040-3
Filed: 06/22/2001 : 1701 North Street
Title: METHOD AND SYSTEM IN AN : Endicott, NY 13760

ELECTRONIC SPREADSHEET
FOR PERSISTENTLY SELF-
REPLICATING MULTIPLE
RANGES OF CELLS THROUGH
A COPY-PASTE OPERATION

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Georgia Y. Brundage 8/29/06
Georgia Y. Brundage Date

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDED APPEAL BRIEF

Dear Sir:

Appellant hereby submits an Amended Appeal Brief in response to the Notification of Non-Compliant Appeal Brief of 08/09/2006 in the above-designated case. Appellant believes no additional fee is due. However, if one is due, the Director is authorized to charge Deposit Account 09-0457.

(i) REAL PARTY IN INTEREST

The real party in interest is International Business

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Machines Corporation, a corporation of New York, with a place of business at Armonk, NY 10504.

(ii) RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences with which the undersigned is aware.

(iii) STATUS OF CLAIMS

Claims 1 - 12 are pending in the present application. Claims 1 - 12 have all been finally rejected and are the subject matter of this appeal.

(iv) STATUS OF AMENDMENTS

Appellant filed an amendment under 37 C.F.R. 1.116 on 4/12/2006 after the final rejection dated 02/16/2006. The Examiner's Advisory Action of 05/09/2006 states that this amendment was considered, but does not place the application in condition for allowance.

(v) SUMMARY OF CLAIMED SUBJECT MATTER

Appellant's invention relates to a unique method for persistently self-replicating multiple ranges of cells in a multi-dimensional spreadsheet.

According to Appellant's independent claim 1, a set of ranges of cells are defined. Each range of cells has the same
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size (specification page 6, lines 16 - 17). At least two of the ranges have different addresses relative to the top leftmost cell A1 of the respective page on which each of the ranges are located, (FIG. 3B where the range of cells associated with, e.g., Quality and Profit, have different relative addresses, because they are on the same page).

The method of independent claim 1 also requires that at each time the content of a range of cells belonging to the set (of ranges of cells) is changed, a self-replication operation is automatically performed (page 6, lines 18 - 20).

The self-replication operation comprises the steps of automatically copying the changed range of cells onto a buffer; automatically determining which set of ranges of cells the changed cells belong to; automatically identifying the ranges of cells belonging to this set; and automatically pasting the content of the buffer in each of the identified range of cells belonging to this set (page 6, lines 22 - 27).

Appellant's independent claim 12 recites identical steps to claim 1 but further requires the steps to be implemented with instruction code. A software product 152 is capable of persistently self-replicating multiple ranges of cells in a multi-dimensional spreadsheet.

According to Appellant's independent claim 12, a set of ranges of cells are defined. Each range of cells has the same size (specification page 6, lines 16 - 17). At least two of the ranges have different addresses relative to the top leftmost

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cell A1 of the respective page on which each of the ranges are located, (FIG. 3B where the range of cells associated with, e.g., Quality and Profit, have different relative addresses, because they are on the same page.)

The method of independent claim 12 also requires that at each time the content of a range of cells belonging to the set (of ranges of cells) is changed, a self-replication operation is automatically performed (page 6, lines 18 - 20).

The self-replication operation comprises the steps of automatically copying the changed range of cells onto a buffer; automatically determining which set of ranges of cells the changed cells belong to; automatically identifying the ranges of cells belonging to this set; and automatically pasting the content of the buffer in each of the identified range of cells belonging to this set (page 6, lines 22 - 27).

There are no other independent claims and no dependent claims are argued separately herein.

(vi) GROUND OF REJECTION

There is only one ground of rejection. Claims 1 - 12 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (U.S. Patent 5,463,724) in view of Barnes, "10 Minute Guide to Windows 3.1", and further in view of "Getting Results with Microsoft Office 97", pages 169 - 181.

Specifically, regarding claim 1, the Examiner cites
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Anderson, Column 10, line 58, to column 11, line 30 and column 7, line 62, to column 8, line 10, and FIG. 4G to 4J) as teaching all of the first step of claim 1. The Examiner cites Anderson, Column 11, line 4 to 30, and FIG. 4H - J as disclosing automatically performing a self-replication operation of claim 1. The Examiner states that Anderson does not disclose automatically copying the changed range of cells onto a buffer, automatically determining the set of ranges of cells to which the changed range of cells belongs to, automatically identifying the ranges of cells belonging to said set, and automatically pasting the content of the buffer in each of identified range of cells belonging to said set. However, the Examiner states that Barnes teaches copying of information into a clipboard-buffer and then pasting from the clipboard into a specified location (page 60, lines 14 - 20). In addition, the Examiner states that Office discloses automatically updating and pasting spreadsheet cells to a destination Word document whenever figures within an originating spreadsheet change (page 174). The Examiner states that it would be obvious to combine Anderson, Barnes, and Office to perform the automatically copying, determining, identifying, and pasting of claim 1.

Independent claim 12 is similarly rejected.

Further detail is not needed because Appellant argues below that all of the independent claims from which the dependent claims depend, are allowable. Therefore, all of the dependent claims rejected under this ground of rejection are also allowable.

(vii) ARGUMENT

Claims 1 - 12 are patentable under 35 U.S.C. 103(a) over the prior art and particularly U.S. Patent 5,463,724 (Anderson) in combination with the published papers "10 Minute Guide to Windows 3.1" (Barnes) and "Getting Results with Microsoft Office 97" (Office) pages 169 - 181.

The combination of Anderson with Barnes and Office does not describe all of the required steps of Appellant's claim 1. Nor does the combination render claim 1 obvious. Appellant therefore respectfully disagrees with this rejection and offers the following arguments in support thereof.

Appellant's claim 1 clearly requires defining a set of ranges of cells having the same size, and at least two of said ranges having different addresses relative to the top leftmost cell A1 of the respective page on which each of said ranges are located. Anderson does not describe this defining step. The Examiner cites Anderson, column 10, line 58, to column 11, line 30, and column 9, line 60, to column 10, line 31, and FIG. 4G - 4J. Taking column 9, line 60, to column 10, line 31, first, Anderson describes grouping pages, but does not describe defining a set of ranges of cells as required by claim 1. Anderson does not describe ranges because with his method there is no need to define ranges, that is, information entered in a cell is propagated to the same cell on other pages in his group. See Anderson column 10, lines 23 - 26. Appellant's claim 1 specifically excludes this "group mode" described by Anderson by requiring different relative addresses for at least two ranges.

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The Examiner states that Anderson discloses "at least two of said ranges having different addresses relative to cell A1 of the respective page on which each of said ranges are located". There is no description of ranges much less ranges having different relative addresses in this cited portion of Anderson (column 9, line 60, to column 10, line 31).

Taking next the cited portion of Anderson (column 10, line 58, to column 11, line 30), Anderson describes manually copying and pasting a block of cells from one location on a spreadsheet page to another location. Relative and absolute cell addressing is employed as was well known in the art (at the time Anderson was filed - 1995). Anderson also describes in this portion, use of a "model copy technique". With model copying enabled, absolute references adjust to the new location of the referenced cell so that the user does not have to manually edit each formula. This model copy technique was well known and included as a standard feature of spreadsheet software products by the time of Appellant's filed invention - 2001. Appellant's background art section, page 4, lines 19 - 31, acknowledge this technique as known art.

However, neither the manual copying technique, nor the model copy technique use or describe defining a set of ranges of cells, at least two of said ranges having different relative addresses as required by Appellant's claim 1. This cited portion of Anderson does not describe the required feature of claim 1.

Turning now to FIG. 4G - 4J, this is again the model copy
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technique just addressed above. There is no description or suggestion of defining a set of ranges of cells, at least two of said ranges having different relative addresses.

The Examiner's citation of Anderson as disclosing this important feature of claim 1 is in error.

Furthermore, claim 1 requires automatically copying into a buffer, automatically determining, automatically identifying, and automatically pasting the content of the buffer in each of identified range of cells belonging to said set. The Examiner correctly notes that Anderson fails to disclose these required steps, and cites Barnes and Office.

While Barnes and Office disclose automatically copying information into a clipboard (a buffer) and pasting spreadsheet cells into a Word document (a word processor product, not a spreadsheet), this does not describe or suggest the four automatic steps. The first step is copying to a buffer and the last step is pasting. However, there is also a requirement to determine the set of ranges of cells-that is-the set of ranges of cells defined earlier in claim 1, and to identify the ranges of cells belonging to the set as assigned above, Anderson does not describe defining this set of ranges of cells. Consequently, they cannot be later determined and identified by Barnes or Office because these describe only copying and pasting. It is not obvious how one of ordinary skill could combine Anderson, Barnes, and Office to perform the required steps of determining the set of ranges of cells or identifying the ranges of cells belong to the set, when the set of ranges of

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cells was never defined. The Examiner errs in stating that these two steps of determining and identifying are obvious under 35 U.S.C. 103(a).

For the reasons stated above, Appellant's claim 1 is allowable. Independent claim 12 is allowable for the same reasons. Claims 2 - 11 all depend on allowable claim 1 and are therefore also allowable without separate argument.

Appellant's position therefore is that of rejection of all of the pending claims is in error and must be withdrawn. All of the claims are allowable under 35 U.S.C. 103(a) over Anderson in view of Barnes and Office.

In view of the above, Appellant respectfully requests that the board reverse the Examiner's final rejection of all of the claims on appeal, and allow these claims.

Respectfully submitted,

Dated: 08/29/06

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(viii) CLAIMS APPENDIX

1. A method for persistently self-replicating multiple ranges of cells through a copy and paste operation, in a multi dimensional spreadsheet comprising a plurality of cells having content and identified by a cell address along each dimension, a range of cells comprising one or a plurality of cells, the method comprising the steps of:

defining a set of ranges of cells, each range of cells having the same size, and at least two of said ranges having different addresses relative to the top leftmost cell A1 of the respective page on which each of said ranges are located; and

each time the content of a range of cells belonging to said set is changed, automatically performing a self-replication operation, said self-replication operation comprising the steps of:

automatically copying the changed range of cells onto a buffer;

automatically determining the set of ranges of cells to which the changed range of cells belongs to;

automatically identifying the ranges of cells belonging to said set; and

automatically pasting the content of the buffer in each of identified range of cells belonging to said set.

2. The method of Claim 1 wherein the step of defining a set of ranges of cells further comprises the steps of:

adding a new range of cells to said set of ranges of cells, wherein said step of adding further comprises the steps of:

selecting a new range of cells; and

creating a link between the new range of cells with at least one range of cells belonging to said set of ranges of cells.

3. The method according to claim 1, wherein the step of defining a set of ranges of cells further comprises the step of:

performing a persistent copy operation on a first range of cells, wherein said persistent copy operation comprises the steps of:

selecting a first range of cells;

copying onto a buffer the selected first range of cells;

performing a persistent paste operation, wherein said persistent paste operation comprises the steps of:

selecting at least one other range of cells; and
for each other selected range of cells:

copying the content of said buffer onto each other

selected range of cells; and

creating a link between each other range of cells and the first range of cells.

4. The method according to claim 3, wherein the step of performing a persistent copy operation further comprises the step of:

invoking a persistent copy command; and

wherein the step of performing a persistent paste operation further comprises the step of:

invoking a persistent paste command.

5. The method according to claim 1, wherein the step of defining a set of ranges of cells further comprises the steps of:

storing in a table a name for identifying said set of ranges of cells;

storing in said table, means for identifying each range of cells belonging to said set; and

creating a link in said table between the name of the set and said means for identifying each range of cells belonging to said set.

6. The method according to claim 1, wherein the step of

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defining a set of ranges of cells further comprises the step of:

associating the ranges of cells belonging to said defined set with set dependent display attributes.

7. The method according to claim 6, wherein the step of associating the ranges of cells belonging to said defined set, further comprises the steps of:

associating a first variable with said set of ranges of cells;

setting said first variable to a set dependent value; and

displaying the ranges of cells of said set with display attributes according to the value of said first variable.

8. The method according to claim 5, wherein the step of storing in said table, means for identifying each range of cells belonging to said set, further comprises the steps of:

for each range of cells belonging to said set:

determining current attributes of said range of cells;

storing in said table said current attributes; and

associating in said table the range of cells with the current attributes.

9. The method according to claim 7, wherein the step of storing in said table said current attributes, comprises the further step of:

associating a second variable with each range of cells; and

setting said second variable to a value associated with said current attributes.

10. The method according to claim 7, further comprising a step of removing a range of cells from the set of ranges of cells, wherein the step of removing further comprises the step of:

retrieving the current attributes associated with said range of cells; and

displaying said range of cells with said current display attributes.

11. The method according to claim 5, wherein said means for identifying comprises a name or an address.

12. A method of implementing a software product for a client, the software product capable of persistently self-replicating multiple ranges of cells through a copy and paste operation, in a multi dimensional spreadsheet comprising a plurality of cells having content and identified by a cell address along each dimension, a range of cells comprising one or a plurality of cells, the method comprising the steps of:

providing first instruction code for defining a set of ranges of cells, each range of cells having the same size, and at least two of said ranges having different addresses relative to the top leftmost cell A1 of the respective page on which each of said ranges are located; and

providing second instruction code for detecting each time the content of a range of cells belonging to said set is changed, and automatically performing a self-replication operation, said self-replication operation comprising the steps of:

automatically copying the changed range of cells onto a buffer;

automatically determining the set of ranges of cells to which the changed range of cells belongs to;

automatically identifying the ranges of cells belonging to said set; and

automatically pasting the content of the buffer in each of identified range of cells belonging to said set.

(ix) EVIDENCE APPENDIX

None.

(x) RELATED PROCEEDINGS APPENDIX

None.